sowed the seeds of Carlyle's mysticism and his adoration of the hero.

Dr. Halliday has some very ingenious theories about the psychopathic origins of Carlyle's philosophy and his particular gifts as a writer. He contends that his preoccupation with the social health of Britain and his Hamlet-like feeling that the times were out of joint were largely projections of his own inner sickness. But he very rightly adds that much of Carlyle's social rebelliousness—his hatred of the growing industrialism of the mid-nineteenth century and his warning that men were pursuing outer and material aims to the neglect of the inner and the spiritual—has been justified by the event. On the other hand, Carlyle overstressed the conflict-and-strife element of life and underestimated the forces of reconciliation and love. This, says Dr. Halliday, was because he regarded other people, not in terms of love and respect, but in terms of power and dominance over them and submission to them. "His inner attitudes... largely remained at the oral and anal levels of the first and second phases of infancy." Another of Dr. Halliday's ingenious theories is that Carlyle's intense power of visualization as a writer was related to a repressed longing to look at and touch the naked bodies of others which tormented him during his schooldays; and he also has some interesting things to say about Carlyle's sudden impulsive longings for the sea which in all probability stood to him as a mother-symbol.

Dr. Halliday's study is without doubt an interesting and perhaps a valuable contribution to our knowledge of Carlyle. Much of it is, admittedly, speculation; but much of it, too, has a convincing ring, partly because it is supported by carefully chosen passages from the Reminiscences and Sartor. On the other hand, the final picture is necessarily one-sided. Nothing is said of important influences in Carlyle's life—for instance, his heredity or his Calvinistic upbringing—and the stress is throughout on the psychopathic rather than the "normal" aspects of his make-up. In consequence we get a distorted impression of the man and an over-simplification of the motives and influences which

made him the man he was. None the less this is a valuable experiment in biography which, one hopes, will lead to a new school of biographers who are able to seize both the general and the psycho-analytical picture and give to both their due and just place.

RICHARD RUMBOLD.

STILLBIRTHS

Sutherland, Ian. Stillbirths: Their epidemiology and social significance. London, 1949. Oxford University Press. Pp. 93. Price 7s. 6d.

In 1948 there were 18,469 stillbirths in England and Wales, representing a serious loss of life. But in comparison with deaths at later ages, stillbirths have a greater significance than even this number suggests, for they involve the wastage of complete lives.

Stillbirth registration goes back only to From 1928-36 the stillbirth rate 1928. remained constant at about 40 per 1,000 total births, but in 1937 a decline started which continued throughout the war and brought down the rate to 23 in 1948, a reduction of 38 per cent in nine years. During these nine years there were many changes in both the social environment and the medical services. Unemployment was reduced, food more evenly distributed and special supplements and rations provided for expectant mothers. There was also a growing demand for, and increasing provision of, maternity beds in hospitals, and the quality of the midwifery service, in spite of severe shortage of staff, has undoubtedly improved. Any or all of these changes may have contributed to the fall in stillbirths.

Dr. Sutherland discusses in a concise and balanced way the more important literature on stillbirths, and attempts to estimate the importance of various factors in bringing about the recent fall in the stillbirth rate. A final chapter considers the prospects of a further reduction in stillbirths. The greater part of the book is devoted to a restatement of previous work, and the main original contribution is a regression analysis relating

certain biological and social indices to the stillbirth rate. This analysis, which is the result of much careful and painstaking work, is of special interest because it shows the difficulties that confront a biostatistician who draws his data from official sources. In making this analysis two groups of areas were chosen, the eighty-three county boroughs of England and Wales and the fortyeight English administrative counties. For each area indices were obtained which specified the age distribution of confinements, the frequency of first births and the social and economic background. The analysis of these indices showed a definite association of stillbirth rates in 1929-40 with the percentage of poorly paid workers and of unemployed. But it is difficult to assess the significance of this finding, because local authorities with the highest proportion of unemployed and poorly paid workers had also, on the average, the least satisfactory maternity services, the greatest shortage of maternity beds and the highest rate of All these factors are illegitimate births. themselves highly correlated with a high incidence of stillbirths, yet they have had to be omitted from the regression analysis. The importance of these omissions may be illustrated, in the related field of infant mortality, by a recent American study which showed that social class differences in mortality are reduced to negligible amounts when comparisons are made between different income groups having the same standards of medical care.

Dr. Sutherland is, of course, aware of most of these weak points in his analysis. His difficulties arise in part from the fact that, although there are adequate statistics for the whole country and for regional aggregates within the country, less information is available for individual local authorities. For example, though the proportion of first births is given by the Registrar General for the country as a whole it is not listed for each county borough, and Dr. Sutherland has had to use an indirect measure which reduces the precision of his study. Since many worth-while analyses of the type made in this book have to be based on the experience of individual authorities rather than on the whole country, the incompleteness of local statistics is a severe handicap to the biostatistician.

The thorny problem of the relationship of antenatal supervision to the outcome of pregnancy is raised towards the end of this book. Dr. Sutherland concludes that the quantity of supervision probably has little effect on the stillbirth rate, but he is by no means happy about the index of supervision he has adopted. It is, of course, the quality of supervision rather than the quantity that is likely to be important; unfortunately we are unable to measure this. The work of Utheim Toverud has shown that antenatal care, when it includes dietary advice and the provision of food supplements, can bring about a striking fall in prematurity and stillbirths, but we cannot say what part of this fall results from improved medical care and what part from better nutrition. An intensive study of the quality and function of the antenatal services is needed to enable us to answer this question and to employ our limited skill and resources to the best advantage.

This book is a valuable contribution to social medicine and should have an interest for a wide public.

J. W. B. Douglas.